

## **SUMMARY**

Analytical Services [222-S, Hanford Analytical Services Program (HASP), Waste Sampling and Characterization Facility (WSCF)] consists of Analytical Services, PBS WM06, WBS 1.2.4.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, and Cost/Schedule data contained herein is as of January 31, 2000. All other information is as of March 10, 2000.

Preparations were conducted for headspace gas sampling and analysis of 5 TRU waste containers planned for early January 2000. A case narrative was built to validate the adequacy of the previously analyzed 107 drums. The data report will support the January 24, 2000 Carlsbad Area Office audit of Hanford's TRU Program WIPP certification. Technical issues related to Field Reference Standard Certification of Summa Canister Assemblies (SCA) have been successfully resolved.

Milestone performance (EA, DOE-HQ and RL) shows no milestones are due this reporting period.

## **ACCOMPLISHMENTS**

- Performed 1.9 Analytical Equivalency Units (AEU) (FYTD) through January 2000 at the 222-S Laboratory in support of the RPP (TWRS) tank characterization program as planned. Received six segments from AY-101, 10 grab samples from AP-101, and completed extrusions of six AY-101 segments, all as planned. Completed grab sample analysis on SY-102 and AP-108 on schedule. Analytical output lagged in the first four months due to failed hot cell manipulators and a shortage of health physics technicians. However, February and March output has been high and the shortfall will be eliminated by the end of the month. A total of 4.0 AEUs have been processed through March 3, 2000.
- Procedures, methods, equipment, and training all had to be significantly revised to meet the new WIPP permit from the State of New Mexico. All these changes had to be done rapidly to meet overall project audit and shipment schedules. Performed 3,000 analyses (FYTD) through January 2000 at WSCF for a wide variety of customers as planned.
- Completed the Facility Evaluation Board audit at the 222-S and WSCF laboratories in January 2000. The final FEB report was issued in February 2000 with improvements in 9 of 10 areas and an overall rating of "3".

## **SAFETY**

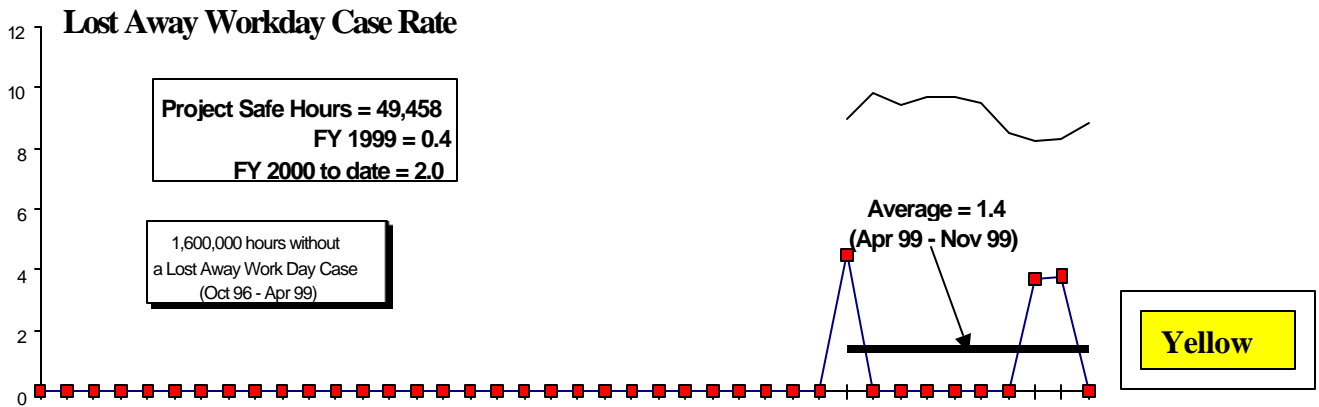
Notes: Although a small organization (meaning a single case gives a high case per hour figure), the three recent (April, November and December 1999) Lost Away Workday cases should be examined closely as they do reflect a significant increase over previous history. The AS Lost Workday Case Rate is significantly higher than the PHMC average. There is a significant increase in the Lost/Restricted Workday Case Rate for Nov 99 - Jan 00.

OSHA recordable case rate and DOE Safety Cost Index have been chosen by DOE HQ as ISMS performance indicators, reference T J GLAUTHIER memorandum of December 3, 1999.

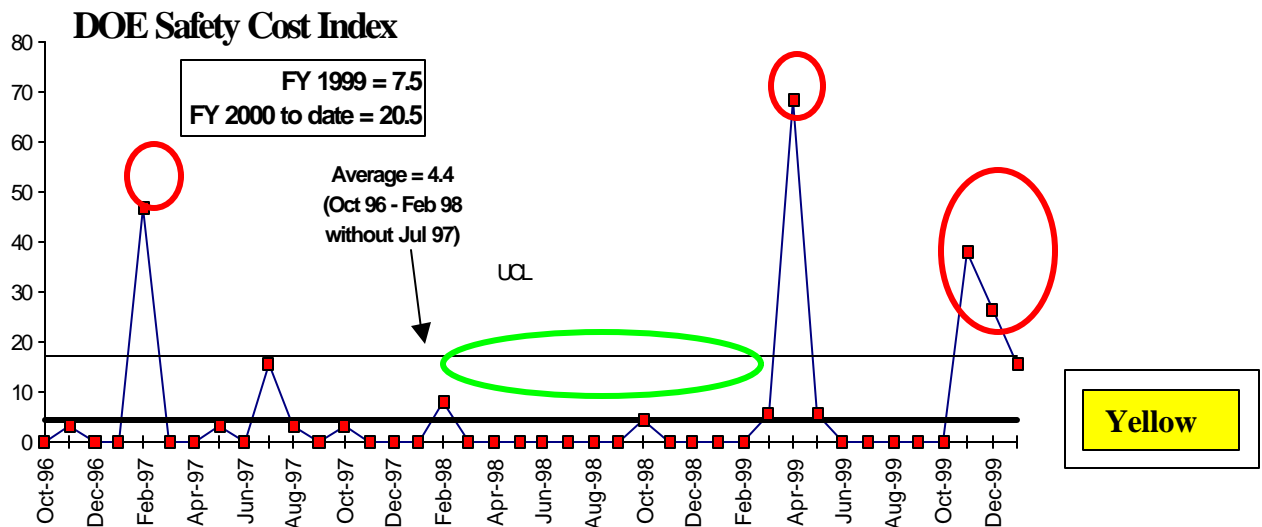
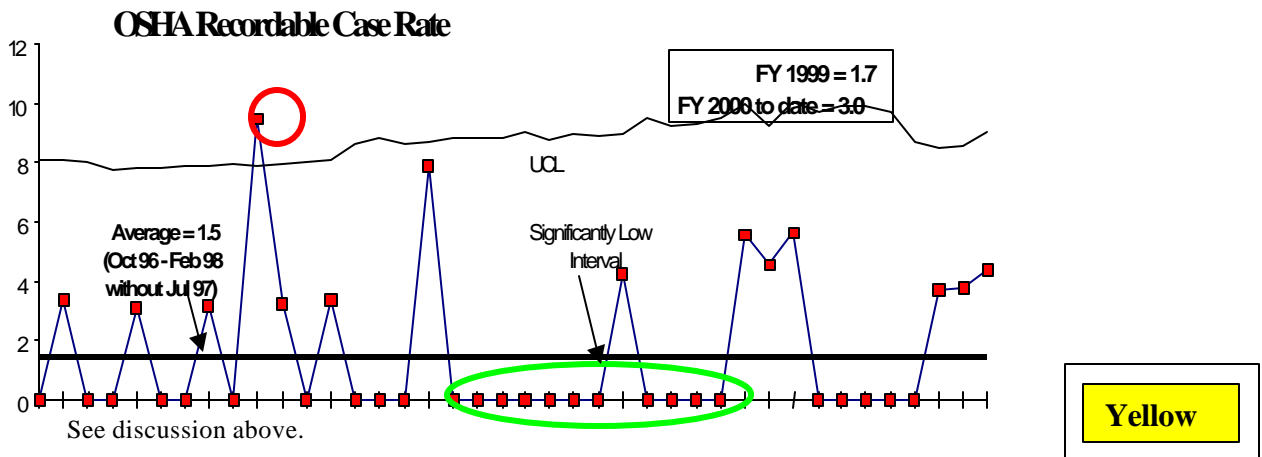
## SAFETY

### Analytical Services

January 2000



The two lost away case in FY 2000 were a result of an employee falling from a chair and a knee abrasion that progressed to complications despite continued attention from medical providers.



All employee stand-down meetings were held at 222-S January 14, 2000 to refocus on safety and personal and team accountability.

## **CONDUCT OF OPERATIONS / ISMS STATUS**

### **CONDUCT OF OPERATIONS**

Analytical Services Conduct of Operations is included in the Waste Management Project Section of this report.

### **ISMS STATUS**

#### **Completed activities:**

- Established a Waste Management Project/ Analytical Services (WMP/AS) core team in December 1999 to assure the accelerated ISMS integration schedule would be met
- Drafted systems descriptions of the integrated management systems for WMP and AS
- Completed first session of ISMS training for all WMP and AS personnel

#### **Planned actions:**

- Issue authorization agreements for Cat 2 nuclear facilities

**Green**

## **BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT**

### **Breakthroughs**

Nothing to report.

### **Opportunities for Improvement**

Nothing to report.

## **UPCOMING ACTIVITIES**

**WIPP Certification and Waste Shipments** -- Discussions are underway to obtain CAO support for the closure audit in the late March time frame. Complete WIPP Certification and initiate TRU shipments in the spring of 2000. Staff is expediting analytical work and data reports to provide additional qualified drums for shipment to WIPP. Potential issues with some prior sampled drums make this a necessity.

**242A Evaporator Operations** – Due to inadequate feed material from tank farms, expedited analysis of a second tank is being done to support the planned April 2000 campaign.

**ORP Readiness to Proceed** -- It has been determined that Analytical Services is prepared to support the readiness to proceed decision for the BNFL contract. Key follow-up actions are:

- Formal specification of requirements from ORP to RL and then to FH
- Stable funding of needed equipment and facility repair in Multi-Year Work Plans (RL and ORP)
- Funding replacement of obsolete laboratory support systems (Information Management)
- Funding of staff to maintain core competency

**Laboratory FEB** -- Support the FEB issuance of the final report and address applicable findings and observations

## **COST PERFORMANCE (\$M):**

|                            | <b>BCWP</b> | <b>ACWP</b> | <b>VARIANCE</b> |
|----------------------------|-------------|-------------|-----------------|
| <b>Analytical Services</b> | \$8.7       | \$8.8       | - \$0.1         |

The \$0.1 million (1.1 percent) unfavorable cost variance is within the established threshold.

## SCHEDULE PERFORMANCE (\$M):

|                     | BCWP  | BCWS  | VARIANCE |
|---------------------|-------|-------|----------|
| Analytical Services | \$8.7 | \$8.8 | - \$0.1  |

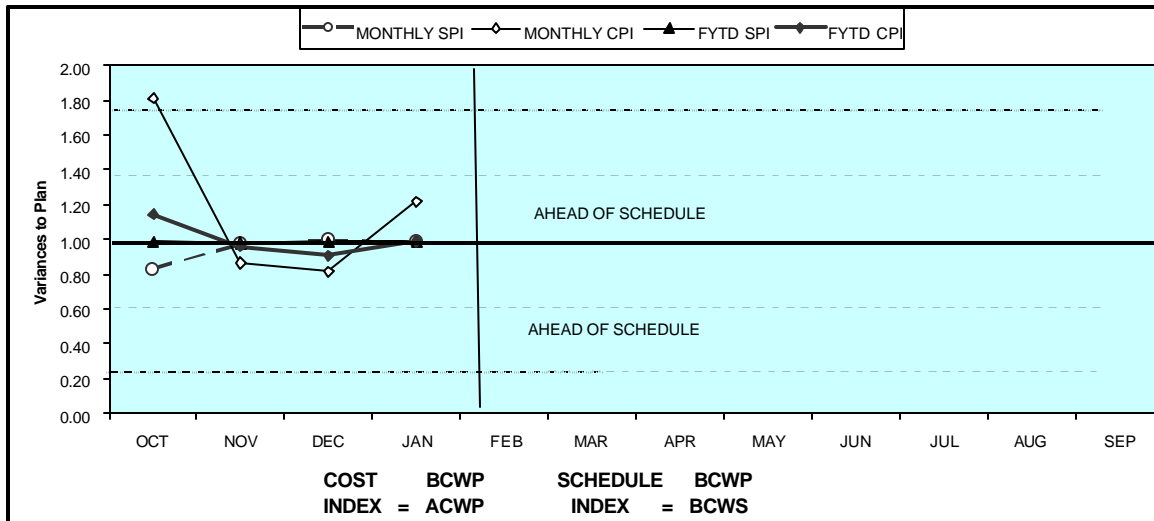
The \$0.1 million (1.5 percent) unfavorable schedule variance is within the established threshold.

## ANALYTICAL SERVICES STATUS WBS 1.24

### FY 2000 Cost/Schedule Performance - All Fund Types Cumulative to Date Status - (\$000)

| By PBS |                     | FYTD |      |      |      |       |      |       | BAC    | EAC    | PROJECTED FUNDING | Rating |
|--------|---------------------|------|------|------|------|-------|------|-------|--------|--------|-------------------|--------|
|        |                     | BCWS | BCWP | ACWP | SV   | %     | CV   | %     |        |        |                   |        |
| WM06   | Analytical Services | 8797 | 8662 | 8765 | -135 | -1.5% | -103 | -1.2% | 27,281 | 28,473 | 26,618            | Green  |
|        | <b>Total</b>        | 8797 | 8662 | 8765 | -135 | -1.5% | -103 | -1.2% | 27,281 | 28,473 | 26,618            |        |

## COST/SCHEDULE PERFORMANCE INDICES (JANUARY 2000 AND FYTD)



| FY 2000      | OCT     | NOV     | DEC     | JAN     | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|--------------|---------|---------|---------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| MONTHLY SPI  | 0.83    | 0.98    | 0.99    | 0.98    |     |     |     |     |     |     |     |     |
| MONTHLY CPI  | 1.81    | 0.87    | 0.81    | 1.22    |     |     |     |     |     |     |     |     |
| FYTD SPI     | 0.99    | 0.98    | 0.99    | 0.98    |     |     |     |     |     |     |     |     |
| FYTD CPI     | 1.14    | 0.96    | 0.91    | 0.99    |     |     |     |     |     |     |     |     |
| MONTHLY BCWS | \$7,913 | \$2,340 | \$1,973 | \$2,896 |     |     |     |     |     |     |     |     |
| MONTHLY BCWP | \$6,543 | \$2,288 | \$1,961 | \$2,847 |     |     |     |     |     |     |     |     |
| MONTHLY ACWP | \$3,613 | \$2,640 | \$2,414 | \$2,342 |     |     |     |     |     |     |     |     |
| FYTD BCWS    | \$1,588 | \$3,928 | \$5,901 | \$8,797 |     |     |     |     |     |     |     |     |
| FYTD BCWP    | \$1,566 | \$3,854 | \$5,815 | \$8,662 |     |     |     |     |     |     |     |     |
| FYTD ACWP    | \$1,369 | \$4,009 | \$6,423 | \$8,765 |     |     |     |     |     |     |     |     |

Note: PHMC cost only (other site contractors not included).

## **ISSUES**

### **Technical Issues**

Issues were self-identified in the WSCF laboratory's conformance to certain customer's (200 ETF, 300 TEDF) permit-mandated regulatory protocols (sample digestion, holding times and accreditation status).

**Impact(s):** Impacts could be discharge permit violation depending on the type of samples. A regulatory penalty is unlikely.

**Corrective Action:** Corrective actions are being taken in each area and customers have been notified to enable impact assessment. Rework of useable archived samples has been done.

### **DOE/Regulator/External Issues**

**Certification of Hanford's TRU Project is necessary to initiate waste shipment to WIPP.** Continue working with the Carlsbad Area Office, the Environmental Protection Agency and the New Mexico Environment Department to achieve WIPP certification of Hanford's TRU Project. Complete lab support required for headspace gas sampling and analysis.

### **Cost Variance Analysis: (- \$0.1M)**

#### **WBS/PBS**

#### **Title**

**1.2.4/WM06**

**Analytical Services**

**Description/Cause:** The unfavorable cost variance is of \$0.1 million (1.1 percent) is within established thresholds.

**Impact:** No impact.

**Corrective Action:** None required.

### **Schedule Variance Analysis: (- \$0.1M)**

#### **WBS/PBS**

#### **Title**

**1.2.4/WM06**

**Analytical Services**

**Description /Cause:** The unfavorable schedule variance of \$0.1M (1.5 percent) is within established threshold.

**Impact:** None

**Corrective Action:** None required.

**Baseline Change Requests Currently in Process**  
**(\$000)**

| PROJECT CHANGE<br>NUMBER           | DATE ORIGIN. | BCR TITLE   | FY00 COST<br>IMPACT \$000 | SCH | TECH | DATE TO<br>CCB | CCB<br>APR'VD | RL<br>APR'VD | CURRENT STAT  |
|------------------------------------|--------------|---|---------------------------|-----|------|----------------|---------------|--------------|---|
| WM-2000-002*                       | 1/3/00       | Waste Management FY 2000<br>Mandated Funds Reductions | (\$878.50)                |     |      | 2/17/00        |               |              | On hold pending<br>evaluation of performance<br>agreement impacts |
| <b>ADVANCE WORK AUTHORIZATIONS</b> |              |   |                           |     |      |                |               |              |   |
|                                    |              |   |                           |     |      |                |               |              |   |

**ANALYTICAL SERVICES – WBS 1.2.4**  
**MILESTONE ACHIEVEMENT**

| MILESTONE TYPE        | FISCAL YEAR-TO-DATE |                             |                   |         | REMAINING SCHEDULED |                            |                  | TOTAL<br>FY<br>2000 |
|-----------------------|---------------------|-----------------------------|-------------------|---------|---------------------|----------------------------|------------------|---------------------|
|                       | Completed<br>Early  | Completed<br>On<br>Schedule | Completed<br>Late | Overdue | Forecast<br>Early   | Forecast<br>On<br>Schedule | Forecast<br>Late |                     |
| Enforceable Agreement | 0                   | 0                           | 0                 | 0       | 0                   | 0                          | 0                | 0                   |
| DOE-HQ                | 0                   | 0                           | 0                 | 0       | 0                   | 0                          | 0                | 0                   |
| FO                    | 0                   | 0                           | 0                 | 0       | 0                   | 0                          | 0                | 0                   |
| RL                    | 0                   | 0                           | 0                 | 0       | 0                   | 1                          | 0                | 1                   |
| <b>Total Project</b>  | 0                   | 0                           | 0                 | 0       | 0                   | 1                          | 0                | 1                   |

| <b>Tri-Party Agreement / EA Milestones</b> |
|--|
| Nothing to report.                         |
| <b>DNFSB Commitments</b>                   |
| Nothing to report.                         |

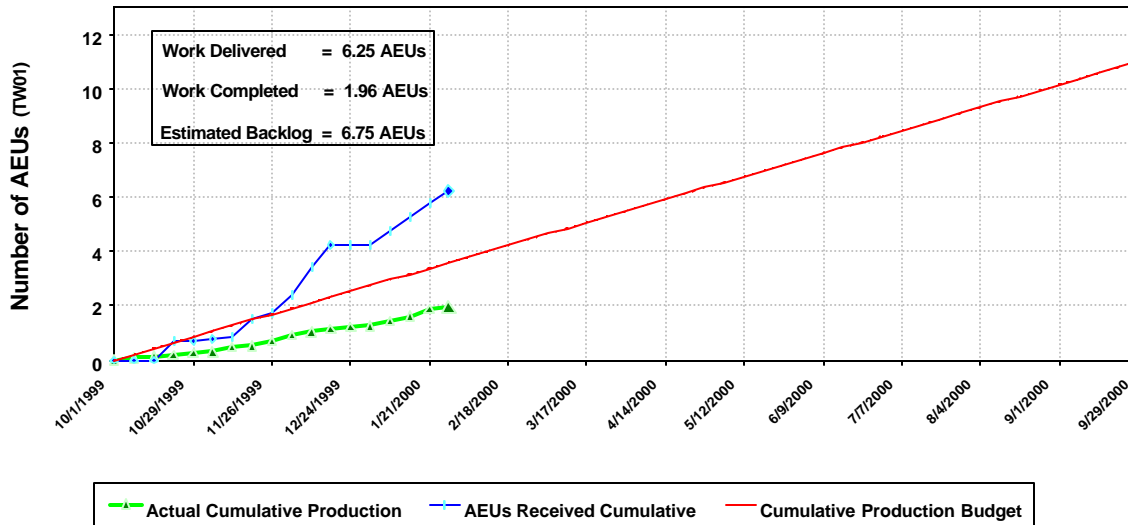
**MILESTONE EXCEPTION REPORT**

| <u>Number/WBS</u> | <u>Level</u> | <u>Baseline Milestone Title</u> | <u>Forecast Date</u> |
|-------------------|--------------|---------------------------------|----------------------|
| <u>Date</u>       |              |                                 |                      |

**OVERDUE – 0**

**FORECAST LATE – 0**

## PERFORMANCE OBJECTIVES



**Continue working with RPP on 222-S laboratory production integration to reduce the backlog shown above. Will meet September 2000 commitment of eleven AEUs.**

**Yellow**

## KEY INTEGRATION ACTIVITIES

- Support ORP Privatization Readiness-to-Proceed activities
- Continue to support BNFL efforts to establish required analytical support for glassification operations.
  - In the longer term, BNFL could utilize unused space at WSCF for cold run test support and process laboratory analytical equipment testing.
  - The 222-S laboratory, with some refurbishment might become a low cost option to a new large scale laboratory associated with the glassification facility
- Continue to support RL with the WSCF path-forward study which evaluates the spectrum of services WSCF provides versus other potential options.
  - Discussions by the Site Management Board is planned in late April 2000